California Education and the Environment Initiative

The EEI Curriculum cohesively integrates science and engineering practices (SEPs), content (disciplinary core ideas/DCIs), and crosscutting concepts (CCs) within its lesson procedures. This preliminary analysis intentionally teases apart the individual SEPs, DCIs, and CCs as a means of correlating the EEI unit with specific performance expectations; however, the EEI lessons weave these components back together.

Grades 1 and 2

1.2.a. - Surviving and Thriving

"Surviving and Thriving" gives students an opportunity to discover that there is an important connection between the physical features of plants and animals and the characteristics of the different environments in which they live. This unit allows students to examine the physical features of plants and animals and discover that all organisms have external parts. They also see that different animals use their body parts in different ways to see, hear, grasp objects, and protect themselves. At the same time, they learn that plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. They learn about these physical features by analyzing different settings so they realize that there are many different kinds of living organisms in any area, and they exist in different places on land and in water.

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Next Generation Science Standards* Correlation with the California Education and the Environment Initiative (EEI) Curriculum

The EEI Curriculum is a great choice for transitioning to NGSS and contributes toward achievement of the performance expectations for the disciplinary core ideas reflected in the Summary Chart below: 1-LS1 From Molecules to Organisms: Structures and Processes and 2-LS4 Biological Evolution: Unity and Diversity. Each EEI unit highlights a small number of performance expectations, science and engineering practices, disciplinary core ideas, and crosscutting concepts. Therefore, the EEI units contribute to students' overall achievement of the performance expectations by the end of a school year, where they will have had multiple opportunities to engage in all appropriate science and engineering practices, disciplinary core ideas, and crosscutting concepts. While EEI was designed to teach the 1998 California science standards to mastery, it reflects the real world interconnections in science and already incorporates many of the paradigm shifts reflected in the NGSS. To learn more about how EEI supports NGSS, visit http://californiaeei.org/NGSSGuides/.

Correlation Chart Key

SEP (Science and Engineering Practices)
DCI (Disciplinary Core Ideas)
CC (Crosscutting Concepts)

	Next Generation Science Standards					
	1-LS1			2-LS4		
California Connection		✓	✓		✓	
Lesson 1 – Discuss how beavers and willows get the resources they need to survive.	✓	✓	✓	✓	✓	
Lesson 2 – Identify external features that help bighorn sheep and the kangaroo rat survive in the desert environment.	✓	✓	✓	✓	✓	
Lesson 3 – Develop charts pairing the external features of plants with the characteristics of their habitat.	✓	✓	✓	✓	✓	
Lesson 4 – Survey their schoolyard as a habitit for plants and animals.	✓	✓		✓	✓	
Traditional Unit Assessment	✓	✓	✓		✓	
Alternative Unit Assessment	✓	✓	✓		✓	
	SEP	DCI	CC	SEP	DCI	CC

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EEI Unit 1.2.a Surviving and Thriving

Disciplinary Core Ideas Supported by this EEI Unit
1-LS1 From Molecules to Organisms: Structures and Processes
2-LS4 Biological Evolution: Unity and Diversity

Performance Expectations	Suggestions for Using the EEI Unit to Support NGSS
1-LS1-1: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	Use the unit to have students study how plants and animals are able to use their different external parts to help them survive and grow.
2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats.	Use the unit to help students discover the diversity of plants and animals in three habitats: the desert, a water habitat, and at their school.

Science and Engineering Practices (SEPs)	Suggestions for Using EEI to Support SEPs	Disciplinary Core Ideas (DCIs)	Suggestions for Using EEI to Support DCIs	Crosscutting Concepts (CCs)	Suggestions for Using EEI to Support CCs
Constructing explanations and designing solutions (1-LS1-1)	Use the unit to have students listen and share what they find out about beavers, and what humans can learn from them to help with flood control, shelter, and warning systems (Lesson 1). Have students observe animals' external parts and recognize that, for example, the artificial legs that humans have designed mimic the spring-like action of a kangaroo rat's hind legs (Lesson 2). Give students the opportunity to examine cactus needles and discuss how they provide shade and protection for these plants (Lesson 3). After observing plants and animals at their school, have students design a way to to improve their schoolyard for plants and animals. (Lesson 4).	**LS1.A: Structure and Function:** All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (LS1-1).	Use the unit to have students examine beavers, kangaroo rats, and bighorn sheep and determine that they have external parts that help them survive and grow (Lessons 1 and 2). Have students investigate willows and cholla cactus and discover that they have different parts that help them survive and grow (Lessons 1 and 3).Use the unit to have students explore the diversity of plants and animals living in a variety of habitats (Lessons 1-4).	**Structure and Function (1-LS1-1)**	Use the unit to have students investigate the structure and function of a beaver's teeth, webbed feet, and oily fur and determine that these features help it to grow and survive (Lesson 1). Have students help complete a chart that allows them to observe how the structure and function of desert animals' body parts, such as a bighorn sheep's hooves and a kangaroo rat's strong hind legs, help them survive in a desert habitat (Lesson 2). Ask students to create a picture that illustrates how a cactus' spines and water-storing stems help it survive in the desert (Lesson 3).

Science and Engineering Practices (SEPs)	Suggestions for Using EEI to Support SEPs	Disciplinary Core Ideas (DCIs)	Suggestions for Using EEI to Support DCIs	Crosscutting Concepts (CCs)	Suggestions for Using EEI to Support CCs
Planning and carrying out investigations (2-LS4-1)	Use the unit to have students investigate and share their observations about beavers and willow trees (Lesson 1). Have students observe photographs of and describe major features of kangaroo rats, bighorn sheep, and cholla cactus (Lessons 2 and 3). Give students the opportunity to investigate the environment at their school and develop a plan for improving that environment (Lesson 4).	**LS4.D: Biodiversity and Humans:** There are many different kinds of living things in any area, and they exist in different places on land and in water (2-LS4-1).	Use the unit to help students explore the diversity of plants and animals living in a variety of habitats (Lessons 1-4).		